

REMARKS

This paper is presented in response to the Office Action. Claims 1-8 and 15-21 are canceled. Claims 9-14 and 22-28 are now pending in view of the aforementioned cancellations.

Reconsideration of the application is respectfully requested in view of the above amendments to the claims and the following remarks. For the Examiner's convenience and reference, Applicant's remarks are presented in the order in which the corresponding issues were raised in the Office Action.

I. General Considerations

Applicant notes that the remarks and amendments presented herein have been made merely to clarify the claimed embodiments from elements purported by the Examiner to be taught by the cited references. Such remarks, or a lack of remarks, and amendments are not intended to constitute, and should not be construed as, an acquiescence, on the part of the Applicant: as to the purported teachings or prior art status of the cited references; as to the characterization of the cited references advanced by the Examiner; or as to any other assertions, allegations or characterizations made by the Examiner at any time in this case. Applicant reserves the right to challenge the purported teaching and prior art status of the cited references at any appropriate time.

In addition, the remarks herein do not constitute, nor are they intended to be, an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the distinctions identified and discussed herein are presented solely by way of example. Consistent with the foregoing, the discussion herein is not intended, and should not be construed, to prejudice or foreclose contemporaneous or future consideration, by the Applicant, of additional or alternative distinctions between the claims of the present application and the references cited by the Examiner, and/or the merits of additional or alternative arguments.

II. Claim Rejections under 35 U.S.C. § 102

The Examiner has rejected claims 1-8 and 15-21 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Publication No. 2002/0064193 to Diaz et al. ("*Diaz*"). Applicant disagrees with the Examiner but has canceled claims 1-8 and 15-21 herein and accordingly submits that the rejection of claims 1-8 and 15-21 has thus been rendered moot and should be withdrawn. Applicant expressly reserves the right to pursue the subject matter of the canceled claims in one or more continuation applications.

III. Claim Rejections under 35 U.S.C. § 103

Applicant respectfully notes at the outset that in order to establish a prima facie case of obviousness, it is the burden of the Examiner to demonstrate that three criteria are met: first, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; second, there must be a reasonable expectation of success; and third, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *MPEP* § 2143.

The Examiner has rejected claims 9-14 and 22-28 under 35 U.S.C. § 103(a) as being unpatentable over *Diaz* in view of U.S. Patent Publication No. 2005/0276290 to Preisach (“*Preisach*”). Applicant respectfully disagrees and submits that for at least the reasons set forth below, the rejection should be withdrawn.

In the rejection of independent claims 9 and 22, the Examiner has asserted that “[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to couple an additional PNP current mirror and inductor of *Diaz* to the second switch to allow for an additional degree of control over the diode modulation switching, as well as to differentially drive the laser diode as taught by *Preisach* in order to allow for the use of VCSELs having low differential resistance.” Office Action, page 5. Notwithstanding the foregoing assertions, Applicant respectfully submits that the Examiner has failed to establish the existence of a suggestion or motivation to make the purportedly obvious combination.

For example, Applicant notes that the Examiner has asserted that the purportedly obvious combination would “allow for an additional degree of control over the diode modulation switching, as well as to differentially drive the laser diode as taught by *Preisach* in order to allow for the use of VCSELs having low differential resistance.” *Emphasis added*. Applicant notes however that “additional degree of control” is a relative term whose definition is known only to the Examiner. For example, it is not at all apparent what reference point(s), if any, the Examiner is using as a basis to assert that an “additional degree” of control would necessarily be achieved as a result of the implementation of the purportedly obvious combination. For at least this reason, Applicant submits that the Examiner has failed to establish the existence of a suggestion or motivation to make such combination.

Moreover, it is not at all clear that the driver of *Diaz* is deficient in terms of control over diode modulation switching such that “an additional degree of control” would be necessary, or even desirable. Indeed, *Diaz* states, “One embodiment of the present invention provides an apparatus and method to control both the average power and optical modulation amplitude (OMA) of laser signals driven by an array of laser drivers.” Paragraph [0008] (*emphasis added*). In light of the assertion by *Diaz* that the

devices disclosed in that reference afford such control of the laser, it is not apparent why one of ordinary skill would be inclined to make the purportedly obvious combination advanced by the Examiner.

Furthermore, it is not at all clear that any modification to the driver of *Diaz* is necessary or even desirable in order to use that driver in connection with VCSELs having low differential resistance. For example, where the differential resistance of the VCSEL being driven is “fairly low” (see paragraph [0029] of *Preisach*), it appears that the differential driver of *Preisach* implements “a ‘single-ended’ drive of the VCSEL.” *Id.* Thus, *Preisach* appears to suggest that at least some VCSELs having “fairly low” differential resistance do not necessarily have to be driven differentially. In light of this apparent suggestion in *Preisach*, it is not evident that one of ordinary skill would be inclined to make the purportedly obvious combination advanced by the Examiner.

Finally, it was noted above that the Examiner has asserted that the purportedly obvious combination of *Diaz* and *Preisach* would “... allow for an additional degree of control over the diode modulation switching, as well as to differentially drive the laser diode as taught by *Preisach* in order to allow for the use of VCSELs having low differential resistance.” *Emphasis added.* However, the Examiner has not asserted, much less established, that *Diaz* discloses “... VCSELs having low differential resistance.” Thus, even if the references are combined in the purportedly obvious fashion, the resulting combination fails to include all the limitations of the rejected claims.

In light of the foregoing discussion, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to independent claims 9 and 22, at least because the Examiner has not established the existence of a suggestion or motivation to make the purportedly obvious combination, and because the Examiner has not established that the references, when combined, teach or suggest all the limitations of claims 9 and 22. Applicant thus respectfully submits that the rejection of claims 9 and 22 should be withdrawn.

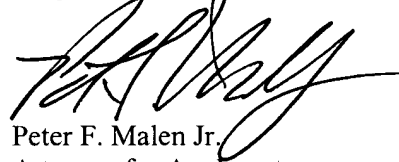
By virtue of their dependence from claims 9 and 22, respectively, claims 10-14 and claims 23-28, each require, among other things, “a second PNP transistor current source coupled to a second inductor ... configured to provide a differential current to a laser diode ...” Inasmuch as the Examiner has not established that any of the references of record teach or suggest this limitation in combination with the other limitations of claims 10-14 and claims 23-28, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to those claims, and the rejection of claims 10-14 and claims 23-28 should accordingly be withdrawn.

CONCLUSION

In view of the remarks submitted herein, Applicant respectfully submits that each of the pending claims 9-14 and 22-28 now pending in this application is in condition for allowance. Therefore, allowance of those claims is respectfully solicited. In the event that the Examiner finds any remaining impediment to a prompt allowance of this application that could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate the same with the undersigned attorney.

Dated this 19th day of June, 2006.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Peter F. Malen Jr.', is written over the typed name.

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